

will necessarily be imperfect. I have seen no specimens named by original authorities, and I have derived much less assistance from British algologists than I had when treating of the *Diatomaceæ*, as many valued correspondents, whose discoveries and notes greatly aided me in the descriptions of the *Diatomaceæ*, have not studied this tribe.

I should however be ungrateful to omit stating, that my friend the Rev. M. J. Berkeley has, during the preparation of these papers, as on former occasions, supplied many useful hints, and assisted me in determining the species and synonyms; and that Mr. Jenner has not only favoured me with numerous specimens, but sent me several drawings made from his own observations, and necessary for the illustration of different species.

BIBLIOGRAPHICAL NOTICES.

List of the Specimens of Mammalia in the British Museum. Printed by order of the Trustees. London, 1843.

List of the Specimens of Birds in the British Museum. Part I. *Accipitres*, 1844.

It is by no means so generally known as it ought to be, that the Trustees of the British Museum have lately set an example which the Directors of all national museums would do well to imitate. Many persons now visit the zoological galleries of the British Museum, not as a mere holiday show, but as a place of scientific study. To this class of visitors the popular 'Synopsis' sold at the door is far too superficial to be of use; a demand has consequently arisen for a more exact scientific account of the contents of the collection, and this demand is now in the course of being supplied. The officers of the several departments have been directed to draw up accurate catalogues of the contents of the Museum, which are revised by Mr. J. E. Gray, the chief officer of the zoological department, and are sold in a cheap and portable form to the public.

The advantages of this measure are manifold. These catalogues may have the desirable effect of converting the mere sight-seer into the scientific student, while they guide the working naturalist to rare and authentic specimens not elsewhere to be met with. For the arrangement of provincial or private collections they will serve as useful models, showing the latest improvements which have been made in classification. They will greatly facilitate scientific intercourse, and the exchanging of duplicates with the public museums abroad, showing at once the amount of our riches and of our wants, while they will also tend to diffuse through the zoological world a well-digested and universally accepted nomenclature. The value of these catalogues is further increased by their enumerating not merely every *species* but every *specimen*; the latter being indicated by the letters of the alphabet, with a statement of the exact localities and

donors of each. As a large portion of the collection consists of *type-specimens*, i. e. of the actual individuals on which explorers and naturalists have founded their definitions of new species, this exact identification of each specimen becomes peculiarly necessary.

Such being the scientific importance of these catalogues, it is satisfactory to find that the laborious task of preparing them is in general executed with judgement and accuracy. The classification is in conformity with the most recent researches, the scientific names are based upon the "law of priority," the synonyms are fully enumerated, and the individual specimens are indicated with precision.

The plan of the catalogues is therefore very good; still it is not perfect, and as they are the commencement of a series which may have considerable influence on the progress of zoology, we shall not hesitate to point out the defects which occur to us.

In the first place, *every species* of mammal and of bird is indicated by a so-called English name, which precedes the Latin or systematic one. Of the expediency of this regulation we have great doubt. The vast majority of foreign species never have had, and never can have, a vernacular English designation, simply because mankind have no occasion to speak of them in common discourse. The authors of the catalogues have therefore been obliged to manufacture English names for such species as did not possess them already, and these names will be useless to the multitude and unintelligible to the scientific; they are therefore an incumbrance to the catalogue, loading the memory if retained in it, and increasing the liabilities to error. We ought rather to induce the unlearned to speak the language of science, than tempt the scientific to descend to vulgarity. Let us remember how greatly Buffon retarded zoological science by his jealous opposition to the admirable nomenclature of Linnæus, and the influence of that fascinating writer still operates too strongly on the continent. Should the arrangements of our national Museum ever accustom British naturalists to use a vernacular terminology in preference to the Linnæan one, it will be a most serious detriment to the progress of science.

We believe that these English names are employed rather in obedience to a popular desire, than from any value attached to them by the scientific officers of the Museum. Nor do we object to the introduction of English names where those names are currently established, as in the case of the leopard, mole, fox, eagle, &c., for such terms convey a distinct idea to the unlearned mind; but the ordinary spectator might as well learn the scientific name at once, as acquire such, to him, new and difficult appellations as the Cacomixle, the Ratlamutchi, the Buansuah, &c. &c. At any rate, if John Bull will insist on a complete English nomenclature, it may at least be made the means of giving him some notion of zoological principles, by making the names as nearly as possible an echo of the Latin binomial ones. Thus *Halmaturus elegans* might be rendered "the elegant Halmature;" *Talegalla australis*, "the Australian Talegalla;" *Elanus melanopterus*, "the black-winged Elanus," and so on. Whereas at present the names on the specimens and in the cata-

logue often tend to diffuse and perpetuate error, as where (in conformity to the mistaken arrangements of old authors) *Talegalla australis* is translated "New Holland Vulture," *Dicaeum* is rendered "Finch," *Nectarinia* and *Mniotilta*, "Creeper," *Brachyurus*, "Crow," and numerous similar instances.

The species in the Museum which appear to be undescribed by other authors are distinguished by specific names, now for the first time proposed. We need hardly point out the necessity of speedily attaching *specific characters* to these new names, either in the catalogue itself, or in some other publication; otherwise these names will acquire no authority, and may be unintentionally superseded by later authors.

With the above exceptions the catalogues are all that can be wished, though one or two improvements might be made in the labels of the specimens themselves. We should like to see the *authority* for the specific name inserted, as in the present state of science a mere binomial designation, without any clue to the author who gave it, is often vague and ambiguous; and though the authors' names are to be found in the catalogue, yet it would be more convenient to have them on the label also. Secondly, as each specimen is indicated by a separate letter in the catalogue, it would be very desirable that the same letter should be conspicuously marked on the label itself, so that the *identity* of the specimens (on which much of their value depends) may be effectually perpetuated, and the spectator may the more readily recognise them. A mark indicative of sex and age might also be added to the labels without materially trenching on their space.

Voyage de la Bonite: Algæ. By C. Montagne, D.M. 112 pp.

By the kindness of the author we have received the text of this interesting portion of the account now publishing of the botanical discoveries made during the voyage of the Bonite. The greater part of the new species have already been characterized in the 'Annales des Sciences Naturelles,' but we have here the full descriptions, accompanied in many instances with most valuable remarks. Of these perhaps the most interesting are those on the genus *Suhria*, which have in great measure been recorded in our journal in a communication made by Mr. Berkeley; and those on the tribe *Chordariae*, of which we think it may not be uninteresting to give a sketch.

The genus *Chordaria* has not hitherto been well described. The author therefore, after referring to all that has been published on the subject, proceeds to give the result of his own observations, having first however stated the structure of *Mesoglaea*, a genus which has lately been well illustrated by Meneghini. Speaking of this genus then he says: "The numerous filaments which form the axis of the fronds and branches are in general united, or, to speak more correctly, held together, in a looser manner than in *Chordaria*, by a gelatinous substance interposed between them, and which itself forms one of the elements of the frond. The consistence, however, which results

from this approximation is not uniform, for a number of intermediate states occur between certain species whose tissue is so loose in the centre that the filaments which are condensed towards the outer surface leave the centre almost tubular (*M. fistulosa*), and the new species described below, which presents almost a cartilaginous consistence. Be the consistence however what it may, the axillary or longitudinal filaments are tubular, articulated, cylindrical, or slightly strangulated at the points of articulation, transparent hyaline or of a pale greenish yellow, from the presence of a small quantity of granular matter in the articulations. They take an oblique direction towards the circumference, anastomosing occasionally with the neighbouring threads; not however, as Meneghini and Decaisne have well observed, and as the latter has shown in his figure of *Nemalion multifidum*, J. Ag., without sending forth at the same time, here and there towards the interior, far more delicate, dichotomous, articulated, and perfectly hyaline filaments, which help doubtless by their interlacing to double the consistence of the frond. The last articulation of the axillary thread, when arrived at the circumference, is elongated into a horizontal filament with much shorter articulations, strongly constricted at the dissepiments, but gradually increasing in breadth as they approach the surface, whence they have a more or less strongly pronounced clavate form. In the Brazilian species, these threads, which are very long, are perfectly cylindrical and not thickened above. Each of the articulations of which they are composed contains a green endochrome of various tints at different stages of growth or in different species, whose form is correlative with that of the articulation. Sometimes it is not a simple filament which terminates the extreme cells of the axillary tissue, but either it is dichotomous, or a certain number are united at the base, from whence also proceed the recurrent filaments. It is usually towards the inferior portion of the radiating filaments that the two kinds of organs are fixed which appear to serve equally towards the propagation of the species; sometimes however it is from the summit itself that they proceed, resembling in this other *Phycoideæ*. The one which are unanimously considered as true spores are composed of a simple, entire, undivided nucleus, consisting of green or brown granules inclosed in a hyaline perispore, which forms a transparent limb round the nucleus. These spores are, according to the particular species, spherical or obovoid; the other organs are regarded by the younger Agardh as metamorphosed radiating filaments, and called by him propagules. Meneghini, who has observed their coexistence with what he calls sporiferous utricles, considers them as a second form of fructification analogous to the siliculæform capsules of the genus *Ectocarpus**, to which in fact they

* Kützing considers the specimens with podlike fruit as individuals having a second form of fructification. Mrs. Griffiths however, who has paid great attention to the genus, does not assent to this view, there being a peculiar habit in each of the pod-bearing species which makes it almost impossible to refer them as mere forms to any of the other species. The subject is however well worth attention, and can be determined only by those who can study the species *in situ*.—EDIT.

bear a very striking resemblance. The resemblance of these bodies to what Agardh calls antheridia is still more striking, as I am enabled to assert from specimens of *Polysiphonia fruticulosa* and *P. fastigiata*, on which they had been observed by Mrs. Griffiths, and which have been communicated by Mr. Berkeley. It is this resemblance, doubtless, which has led Meneghini to give the same name to the organs we are considering in the genus *Mesoglea*. Whatever be their function (I am inclined to consider them myself as gemmæ), they are placed in the genus under consideration either at the base of the radiating threads or at the extremity of a branch of greater or less length proceeding from this base. In comparing them to the siliquæ of *Ectocarpus* we have sufficiently noted their structure, which is well described in the work of Meneghini. As to their form, it varies within certain limits, for they are sometimes oval, ovalilanceolate, or very slender and elongato-lanceolate. In *M. Leveillei*, of which the younger Agardh makes his genus *Liebmannia*, but which, as it appears to us justly, Meneghini comprises in the genus *Mesoglea*, they have two or four horns at their summit; but these divisions of the granular mass are included in a common envelope. Sometimes they are concealed by the radiating filaments, sometimes they exceed them by half their length.

“ We now come to *Chordaria*. The structure is not exactly the same, though there is a great affinity between the two genera. The cells which form the axillary system of the frond, and which form the greater part of its diameter, are united end to end so as to compose tubular filaments, which are cylindrical, diaphanous, articulated, and which decrease in diameter as they approach the circumference. Exactly in the centre (for it is possible to isolate the one set of filaments from the other) these filaments are disposed longitudinally, following the axis of the frond; but the further they are from the centre the more their diameter decreases, and when they arrive at the circumference their frequent anastomoses have reduced them to a network of irregularly polyhedral cells, the more external of which give rise to the radiating tissue. The texture of which we have just sketched the description, but of which good figures alone can give a just notion, has the greatest analogy with that of certain *Florideæ*; it is such that in a transverse section it might be called cellular; and in fact towards the circumference, that is to say, between the axile tissue and the radiating filaments, it can scarcely be considered otherwise. The horizontal filaments spring then from the exterior cells of this kind of intermediate network, and if, instead of being free from any adherence, they were soldered together, there would be an almost perfect resemblance with other genera with a continuous frond. They are clavate, articulated and moniliform; their last articulation, which is also the largest, is sometimes spherical, sometimes cuneiform. This latter conformation arises from the circumstance, that at first the filaments are all of the same length; they are almost adherent one with the other at their apices, absolutely in the same way as the paraphyses of *Laminariæ*, to which they may well be compared, though these latter are simple and not septate. It is at the base of

the filaments in question that we see the spores which are produced at the tip of the same cell which produces the filaments. These in *Chordaria flagelliformis*, which has served as the type for the description of the genus, are elliptic, resembling in form that of melon-seeds. The border of the spores is transparent and of a greater or less breadth. We have never met with 'propagules.'

"We see then, by an approximation of the principal characters drawn from the two preceding descriptions, that the essential difference between *Chordaria* and *Mesoglæa* resides less in the cartilaginous consistence of the frond than in the intimate structure of the axis, which might be called cellular in the first and filamentous in the second. Nevertheless, this consistence, which depends on the closer texture of the centre of the frond, is more constant in *Chordaria*, and may be given as a secondary character. In *Mesoglæa* we know in fact the Brazilian species only which presents this cartilaginous consistence, which ceases when the radiating filaments have partly fallen, that the remainder of the frond, far from collapsing, preserves the cylindrical form proper to *Chordaria*, whence the name of *M. chordarioides* is well adapted to it*."

This is a specimen of the manner in which the author illustrates his subject, almost every species affording an opportunity for something interesting, of greater or less length. We must content ourselves with the above rather copious extract, only indicating those species and genera which have not hitherto been described.

Conferva spinigera, from Monte Video.

Herpochæta, a new genus proposed for the reception of the filiform *Caulerpæ*.

Sphacelaria brachygonia, from St. Catharine's.

Mesoglæa Brasiliensis, from Rio de Janeiro, remarkable for its cartilaginous substance.

Iridæa Cutleria = *Halymenia Cutleria*, *Mart. and Her.*

The other new species have been characterized elsewhere, as stated at the beginning of this notice.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

May 23, 1843.—R. C. Griffith, Esq., in the Chair.

Mr. Cuming communicated the following paper by M. Récluz, being descriptions of various new species of Shells belonging to the genus *Nerita*, from his collection.

* It is to be observed that these observations were written before the publication of Kützing's 'Phycologia,' who has given figures which illustrate admirably the foregoing observation. The only difference that I can perceive is, that he figures a system of smaller filaments interposed between the larger axillary filaments, and Kützing seems to consider the union of the filaments more intimate than is described by Dr. Montagne. Kützing has figured the recurrent filaments in *Mesoglæa*, though he has not pointed attention particularly to them, but in other genera he has exhibited and described this peculiar structure very distinctly.

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